

***National Type Evaluation Program  
Certificate of Conformance  
for Weighing and Measuring Devices***

**For:**

Bench and Counter Scale  
Load Cell Electronic  
Models: SW-5, SW-10, SW-20, and SW-50  
 $n_{\max}$ : 2500;  $e_{\min}$ : 0.002 lb  
Capacity: 5 lb to 50 lb \*  
Platform: 7 1/4" x 9 1/4"

Accuracy Class: III

**Submitted by:**

CAS (USA) Corporation  
99 Murray Hill Parkway  
East Rutherford, NJ 07073  
Tel: (201) 933-9002  
Fax: (201) 933-9025  
Contact: Paul Lewis

**Standard Features and Options**

Semi-automatic (push-button) zero  
Automatic zero setting mechanism (AZSM)  
Initial zero setting mechanism  
Semi-automatic (push-button) tare  
Battery saving feature (auto shut off)

AC/DC adapter  
Customer display  
lb, oz, kg, g capability  
Liquid crystal display (LCD)

\*Specific models and capacities:

Model	Capacity (lb)
SW-5	5 x 0.002
SW-10	10 x 0.005
SW-20	20 x 0.01
SW-50	50 x 0.02

Load cells used: CAS Models SW-2L, SW-5L, SW-10L and SW-20L

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: January 6, 1999



Louis E. Straub  
Chairman, NCWM, Inc.



G. Weston Diggs  
Chairman, National Type Evaluation Program Committee

Issue date: March 31, 1999

Note: The National Conference on Weights and Measures does not "approve", "recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.

This is a reissuance by the NCWM of a Certificate of Conformance already issued by the National Institute of Standards and Technology.

**CAS (USA) Corporation**  
**Bench and Counter Scale**  
**Models: SW-5, SW-10, SW-20, and SW-50**

**Application:** General purpose bench and counter scale.

**Identification:** The required information is located on a metal badge riveted to the side of the scale and on the face plate adjacent to the display.

**Sealing:** A metal plate covers the calibration switch on the bottom of the scale. A screw with a hole drilled across the end is placed through the scale from the top with the end protruding through the metal plate. A wire seal can be passed through the hole on the end of the screw and through a plastic tab that also protrudes through the metal plate to secure access to the calibration switch.

**Test Conditions:** Two Model SW scales were submitted for evaluation (5 lb x 0.002 lb and a 50 lb x 0.02 lb). The emphasis of the evaluation was on device design, operation, compliance with marking requirements, and influence factor requirements. Several Increasing/decreasing load and shift tests were conducted. The scales were tested over a range of temperature from  $-10\text{ }^{\circ}\text{C}$  to  $40\text{ }^{\circ}\text{C}$  ( $14\text{ }^{\circ}\text{F}$  to  $104\text{ }^{\circ}\text{F}$ ). A load of approximately one-half capacity was applied to the scales over 100 000 times. The scales were tested periodically over this time. Additionally, tests were conducted using 100 VAC and 130 VAC power supplies.

The results of the evaluations indicate the devices comply with applicable requirements of NIST Handbook 44.

**Type Evaluation Criteria Used:** NIST Handbook 44, 1999 Edition

**Tested By:** E. Matthews (OH), W. West (OH)